

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.- 12. (Cancelled)

13. (Previously presented) An apparatus for processing a substrate, comprising:

a proximity head defined to generate a fluid meniscus to process a substrate surface; the proximity head having a head surface that includes a plurality of discrete conduits for delivering and removing fluid to define the fluid meniscus that is contained between the head surface and the substrate surface; and

a chamber configured to house the proximity head, the chamber also configured to be supplied with an environmental control gas.

14 (Original) An apparatus for processing a substrate as recited in claim 13 further comprising,

a wafer processing environment generator configured to generate the environmental control gas.

15. (Original) An apparatus for processing a substrate as recited in claim 13, wherein the wafer processing environment generator is a bubbler.

16. (Original) An apparatus for processing a substrate as recited in claim 15, wherein the bubbler is configured to input a gas into a liquid bath and further configured to capture the gas that has traveled through the liquid bath.

17. (Original) An apparatus for processing a substrate as recited in claim 13, wherein the environmental control gas is a high relative humidity gas.

18. (Original) An apparatus for processing a substrate as recited in claim 13, wherein the environmental control gas maintains a concentration of a particular liquid in water.

19. (Original) An apparatus for processing a substrate as recited in claim 18, wherein the particular liquid is one of isopropyl alcohol, DIW and IPA, alcohol, DIW and alcohol, ketone, and ether.

20. (Previously presented) An apparatus for processing a substrate, comprising:
a first proximity head defined to generate a fluid meniscus to process a substrate surface, the first proximity head having a head surface that includes a plurality of discrete conduits for delivering and removing fluid to define the fluid meniscus that is contained between the head surface and the substrate surface; and

an inlet located on the head surface of the proximity head, the inlet being separate from the plurality of discrete conduits for delivering and removing the fluid to define the fluid meniscus, the inlet defined to apply an environmental control gas to a region between the head surface and the substrate surface that is on a leading edge side of the proximity head.

21. (Original) An apparatus for processing a substrate as recited in claim 20, wherein the environmental control gas reduces an evaporation rate of fluids from a surface of the proximity head.

22. (Original) An apparatus for processing a substrate as recited in claim 20, wherein the environmental control gas is a high relative humidity gas.

23. (Original) An apparatus for processing a substrate as recited in claim 20, wherein the gas with a high relative humidity has a relative humidity between about 50% and about 100%.

24. (Original) An apparatus for processing a substrate as recited in claim 22, wherein the gas with the high relative humidity has a relative humidity between about 90% and about 100%.

25. (Original) An apparatus for processing a substrate as recited in claim 22, wherein the gas with the high relative humidity has a relative humidity of about 100%.

26. (Original) An apparatus for processing a substrate as recited in claim 20, wherein the environmental control gas maintains a concentration of a particular liquid in water.

27.-32. (Cancelled)

33. (Previously presented) An apparatus for processing a substrate, comprising:
a first arm;

a first proximity head coupled to the first arm, the first proximity head defined to generate a first fluid meniscus to process a first side of a substrate surface, the first proximity head having a head surface that includes a plurality of discrete conduits for delivering and removing fluid to define the first fluid meniscus that is to be contained between the head surface of the first proximity head and the first side of the substrate surface;

a second arm;

a second proximity head coupled to the second arm, the second proximity head defined to generate a second fluid meniscus to process a second side of the substrate surface; the second proximity head having a head surface that includes a plurality of discrete conduits for delivering and removing fluid to define the second fluid meniscus that is to be contained between the head surface of the second proximity head and the second side of the substrate surface; and

a chamber configured to house the first and second proximity heads, the chamber having inputs to supply an environmental control gas, the chamber being defined to maintain the environmental control gas in a particular condition when the first fluid meniscus and the second fluid meniscus are defined.

34. (Previously presented) An apparatus for processing a substrate as recited in claim 33, wherein the first side is a top side and the second side is a bottom side of the substrate.

35. (Previously presented) An apparatus for processing a substrate, comprising:

a first arm;

a first proximity head coupled to the first arm, the first proximity head defined to generate a first fluid meniscus to process a first side of a substrate surface, the first proximity head having a head surface that includes a plurality of discrete conduits for delivering and removing fluid to define the first fluid meniscus that is to be contained between the head surface of the first proximity head and the first side of the substrate surface;

a first fluid sensor associated with the first proximity head;

a second arm;

a second proximity head coupled to the second arm, the second proximity head defined to generate a second fluid meniscus to process a second side of the substrate surface; the second proximity head having a head surface that includes a plurality of discrete conduits for delivering

and removing fluid to define the second fluid meniscus that is to be contained between the head surface of the second proximity head and the second side of the substrate surface;

a second fluid sensor associated with the second proximity head;

a chamber configured to house the first and second proximity heads; and

a control input for configuring delivery of an environmental control gas into the chamber, the control input receiving data from the first and second fluid sensors so as to configure the delivery of the environmental control gas.